Standard: The adult learner develops and applies math strategies to a variety of situations.

PRE-LITERACY PERFORMANCE STANDARDS

BEGINNING	APPROACHING	MET	EXCEEDS
At this level, the student performs	At this level, the student performs	At this level, the student demonstrates	At this level, the student
the following tasks with a rudimentary	the following tasks with a basic	some conceptual understanding while	consistently performs all the above
understanding of the concepts and	understanding of the concepts and	performing the following tasks. The	tasks by applying both procedural
basic reasoning skills. The student's	reasoning skills; however,	student provides organized solutions	knowledge and conceptual
explanations are minimal and	explanations about how and why	complete with supporting information	understanding to both familiar, routine
presented without a lot of supporting	problems were solved are minimal.	and explanations about how they were	and unfamiliar, non-routine situations;
information.		achieved.	provides solutions that are clear,
	Often in familiar, routine situations and		logical, and go beyond the obvious in
Sometimes in familiar, routine	sometimes in unfamiliar, non-routine	Most of the time in both familiar and	the interpretations;
situations, the student:	situations, the student:	unfamiliar, non-routine situations, the	justifies solutions by explaining
		student:	how, as well as why, the answer was
			achieved

Indicator A: Develops and applies number sense to solve a variety of real-life problems and to determine if the results are reasonable

- 1. Recognizes relationships between real-life representations, number names, and symbolic representation of numbers
 - a. Writes and reads whole numbers between 0 and 100 as numerals
- 2. Relates counting, grouping, and place value concepts to whole numbers
- a. Places in correct sequence whole numbers between 0 and 100
- 3. Performs the operations of addition and subtraction of one-digit numbers
 - a. Adds and subtracts whole numbers between 0 and 9 correctly
- 4. Uses coins and currency
 - a. Recognizes symbols for currency (e.g., \$, ¢)
 - b. Identifies coins and currency using pennies, nickels, dimes, quarters, half-dollars, and bills

PRE-LITERACY PERFORMANCE STANDARDS/NUMBER SENSE

BEGINNING		APPROACHING		MET	EXCEEDS
 reads and writes nume between 0 and 20 recognizes American curre symbols (e.g., \$ and ¢ performs the operations addition and subtraction of digit numbers 	cy of	recognizes relationships among real life representations, number names, and symbolic representation of numbers between 0 and 50 performs the operations of addition and subtraction of one digit numbers identifies coins and currency using pennies, nickels, dimes, quarters, half-dollars, and dollar bills	•	writes, reads, and places in correct sequence whole numbers between 0 and 100 performs the operations of addition and subtraction of one digit numbers recognizes symbols for coins and currency identifies American currency up to and including dollar bills	SAME

Standard: The adult learner develops and applies math strategies to a variety of situations.

Indicator B: Applies data collection, data analysis, and probability to interpret, predict, and/or solve real-life problems

- 1. Constructs and reads tables, charts and graphs
 - a. Collects and records data from a simple survey of at least 5 respondents
 - b. Organizes data according to choice from a simple survey of at least 5 respondents
 - c. Identifies choice receiving largest and smallest number of responses from a simple survey of at least 5 respondents
 - d. Constructs a display of data indicating responses from a simple survey of at least 5 respondents

MATHEMATICS PRE-LITERACY PERFORMANCE STANDARDS/ DATA ANALYSIS

In a simple survey of at least five respondents the student:

BEGINNING	APPROACHING	MET	EXCEEDS
collects, records, and organizes data	 Collects and records data accurately Organizes data according to choice 	 Collects and records data accurately Organizes data according to choice 	
	 Identifies choices receiving largest and smallest number of responses Constructs a display of data indicating responses 		SAME

Indicator C: Applies algebraic concepts and methods to explore, analyze or solve real-life problems

- 1. Creates, describes, and extends a variety of patterns and formulates generalizations to make predictions
 - a. Replicates a pattern using manipulatives or objects (tangrams)
- 2. Represents and describes mathematical ordering and grouping relationships
 - a. Determines the next number in a sequence of numbers up to a hundred

MATHEMATICS PRE-LITERACY PERFORMANCE STANDARDS/ALGEBRAIC CONCEPTS

BEGINNING	APPROACHING	MET	EXCEEDS
 replicates a three-item single-attribute pattern, (e.g., red square, blue square, yellow square, red square) determines the next number in a given sequence of numbers up to 20 	 replicates a five item one attribute pattern (e.g., red square, blue square, yellow square, green square, purple square, red square) determines the next number in a given sequence of numbers up to 50 	 replicates a five-item two-attribute pattern (e.g., large red square, small blue square, large yellow square, small red, large red square) determines the next number in a given sequence of numbers up to 100 	SAME

Standard: The adult learner develops and applies math strategies to a variety of situations.

Indicator D: Uses geometric properties, relationships, and methods to identify, analyze and solve real-life problems

- 1. Identifies basic geometric shapes
 - a. Names simple polygons (e.g., triangle, square, rectangle)
 - b. Names simple solid geometric forms using own vocabulary

MATHEMATICS PERFORMANCE STANDARDS PRE-LITERACY/GEOMETRY

BEGINNING	APPROACHING	MET	EXCEEDS
 names simple polygons using the student's own vocabulary 	names simple polygons and solid geometric forms using the student's own vocabulary	identifies characteristics of simple polygons and solid geometric forms using the student's own vocabulary	SAME

Indicator E: Applies knowledge of standard measurements to real-life situations

- 1. Selects the appropriate measurement with U.S. customary units for an object or event
 - a. Selects the appropriate device to measure the given attribute of an object or event (e.g., ruler, thermometer, measuring cup, scale, stop watch)

MATHEMATICS PRE-LITERACY PERFORMANCE STANDARDS/MEASUREMENT

BEGINNING	APPROACHING	MET	EXCEEDS
selects the appropriate device for measuring an object	 selects the appropriate device for measuring an object or event using United States customary units 	measuring an object or event	SAME

Standard: The adult learner develops and applies math strategies to a variety of situations. ABE I

ABE I Performance Standards

BEGINNING	APPROACHING	MET	EXCEEDS
At this level, the student performs the following tasks with a rudimentary understanding of the concepts and basic reasoning skills. The student's explanations are minimal and presented without much supporting information.	At this level, the student performs the following tasks with some understanding of the concepts. The student is able to employ problemsolving strategies such as identifying and using appropriate information. Although reasoning skills are evident and supporting information is present, explanations are not always complete.	At this level, the student makes sound decisions about how to set up a problem and performs the following tasks by applying both procedural knowledge and conceptual understanding. The student explains the reasoning used and justifies the procedures selected with concrete objects and pictorial representations. The student notes connections between one problem and another.	At this level, the student: consistently performs all the above tasks in both familiar, routine and unfamiliar, non-routine situations identifies relationships, discriminate relevant from irrelevant information, sequences, prioritizes, and observes patterns shows mathematical reasoning in solutions in a variety of ways, including words, numbers, symbols, pictures, charts, graphs, tables, diagrams and models expresses solutions clearly and logically using appropriate mathematical notation and terms and clear language, and supports solutions with evidence, in both oral and written work

Standard: The adult learner develops and applies math strategies to a variety of situations.

INDICATOR A: Develops and applies number sense to solve a variety of real-life problems and to determine if the results are reasonable.

ABE I PERFORMANCE STANDARDS/ NUMER SENSE

	BEGINNING		APPROACHING		MET	EXCEEDS	
•	adds and subtracts whole numbers, without regrouping, up to 100 expresses equal relationships of coins using dimes, nickels, and pennies up to \$.50	•	places numbers between 0 and 1000 on a number line expresses, reads, and writes whole numbers between 0 and 1000 as numerals and number words matches a fraction and number word to a pictorial representation of halves, thirds, and fourths adds and subtracts whole numbers up to 500 with regrouping distinguishes between odd and even numbers explains place value up to the tenth's counts specific amounts of money using coins and bills up to \$1.00	•	adds and subtracts whole numbers up to 500 multiplies and divides single digit numbers distinguishes between odd and even numbers identifies and describes models of common fractions makes a model to represent a fractional representation of halves, thirds, and fourths expresses whole numbers between 0 and 1000 in expanded notation	SAME	

Indicator B: Applies data collection, data analysis, and probability to interpret, predict and/or solve real-life problems.

ABE I PERFORMANCE STANDARDS/DATA ANALYSIS

BE	GINNING		APPROACHING	MET	EXCEEDS
	erprets most pictographs any events that have a 100% or 0%	•	collects and records data reads and interprets bar graphs identifies outcomes that are likely to occur in one-step probability experiments	collects, records, and organizes data constructs, reads, analyzes, and interprets pictographs, circle graphs and bar graphs predicts the likelihood of events in any onestep probability experiment and compares the outcome of an experiment to the predictions	SAME

Standard: The adult learner develops and applies math strategies to a variety of situations.

INDICATOR C: Applies algebraic concepts and Methods to explore, analyze or solve real-life problems

ABE I PERFORMANCE STANDARDS/ ALGEBRA

	BEGINNING	APPROACHING	MET	EXCEEDS
•	creates three-item, single-attribute patterns and at times, is able to explain the logic of the sequence	 creates a five-item, single-attribute pattern and explains the logic of the sequence skip counts by 2's, 5's, and 10's up to 20 finds the missing element in a number sentence involving addition and subtraction 	of patterns • skip counts up to 100 by 2's, 5's, and 10's	SAME

Indicator D: Uses geometric properties, relationships, and Methods to identify, analyze and solve real-life problems.

ABE I PERFORMANCE STANDARDS/ GEOMETRY

I	BEGINNING	APPROACHING		MET	EXCEEDS
	• identifies a few attributes of simple			ntifies the characteristics of simple polygons ntifies the characteristics of simple solid geometric	SAME
	polygons .	simple polygons (i.e., side, leg, angle, right angle)		ures	JAME

Indicator E: Applies knowledge of standard measurements to real-life situations

ABE I PERFORMANCE STANDARDS/ MEASUREMENT

	BEGINNING	APPROACHING	MET	EXCEEDS
•	describes how the attributes of some objects and events can be measured using different units of measurement	chooses the appropriate tool and unit to measure an object or event	 makes reasonable estimates and measures various attributes of objects and events with appropriate tools and measuring units solves real life problems involving measurements using U.S. customary units identifies the appropriate measurement of an object or event with U.S. customary units (length, capacity, weight, area, volume, time, and temperature) 	SAME

Standard: The adult learner develops and applies math strategies to a variety of situations.

ABE II

BEGINNING	APPROACHING	MET	EXCEEDS
At this level, the student performs the following tasks with basic understanding of the concepts and limited reasoning skills. The student's explanations are often minimal and presented without much supporting information.	At this level, the student performs the following tasks with some understanding of the concepts. The student is able to employ problemsolving strategies such as identifying and using appropriate information. Although reasoning skills are evident and supporting information is present, explanations are not always complete. Often in familiar, routine situations and sometimes in unfamiliar, non-routine situations, the student:	At this level, the student makes sound decisions about how to set up a problem and performs the following tasks by applying both procedural knowledge and conceptual understanding. The student explains the reasoning used and justifies the procedures selected with concrete objects and pictorial representations. The student notes connections between one problem and another. Most of the time in both familiar, routine and unfamiliar, non-routine situations, the student:	At this level, the student: consistently performs all the above tasks in both familiar, routine and unfamiliar, non-routine situations analyzes problems by identifying relationships, discriminating relevant from irrelevant information, sequencing and prioritizing, and observing patterns applies strategies and results from simpler problems to more complex situations shows mathematical reasoning in solutions in a variety of ways, including words, numbers, symbols, pictures, charts, graphs, tables, diagrams and models expresses the solution clearly and logically using appropriate mathematical notation and terms and clear language, and supports solutions with evidence, in both oral and written work indicates the relative advantages of exact and approximate solutions to problems and gives answers to a specified degree of accuracy

Standard: The adult learner develops and applies math strategies to a variety of situations.

ABE II

Indicator A: Develops and applies number sense to solve a variety of real-life problems and to determine if the results are reasonable.

ABE II PERFORMANCE STANDARDS/ NUMBER SENSE

ABE II PERFURMANCE STANDARDS/ NUMBER SENSE					
BEGINNING	APPROACHING	MET	EXCEEDS		
 adds and subtracts whole numbers up to 500 multiplies and divides double digit numbers expresses equal relationships of coins using dimes, nickels, and pennies up to \$5.00 places numbers between 0 and 10,000 on a number line expresses, reads and writes whole numbers between 0 and 10,000 as numerals and numbers identifies models of mixed numbers uses estimation to check the reasonableness of results and rounds whole numbers to hundredths 	 places numbers between 0 and 10,000 on a number line adds, subtracts, and multiplies whole numbers up to 1000 with regrouping explains place value up to the thousand's place counts specific amounts of money using any coin or bill describes mixed numbers as parts of a whole expresses, reads and writes whole numbers between 0 and 10,000 as numerals and numbers identifies models of mixed numbers uses estimation to check the reasonableness of results and rounds whole numbers to thousandths 	 performs operations, estimates, and recognizes relationships with whole numbers up to 10,000 expresses, reads and writes whole numbers between 0 and 10,000 as numerals and numbers expresses whole numbers between 0 and 10,000 in expanded notation identifies models of mixed numbers matches mixed numbers to pictorial representations and makes a model to represent a fractional representation of mixed numbers expresses equal relationships of coins and currency using pennies, nickels, dimes, quarters, half-dollars, and bills up to \$100.00 explains the meaning of multiplication and division and use one operation to check the answers of the other adds, subtracts, multiplies, and divides whole numbers between 0 and 1,000 correctly selects appropriate operation to solve onestep word problems involving whole numbers between 0 and 1,000 uses estimation to check the reasonableness of results and rounds whole numbers to thousandths 	SAME		

Standard: The adult learner develops and applies math strategies to a variety of situations.

Indicator B: Applies data collection, data analysis, and probability to interpret, predict and/or solve real-life problems.

ABE II Performance Standards/Data Analysis

BEGINNING	APPROACHING	MET	EXCEEDS
 describes events that have a probability of 100% or 0% collects, records, and organizes data constructs, reads, analyzes, and interprets pictographs, circle graphs and bar graphs 	 organizes the data and constructs and reads pictographs, circle graphs and bar graphs identifies outcomes that are more likely or less likely to occur in one-step probability experiment describes events that have 100% or 0% probability 	 organizes the data and constructs, reads, analyzes, and interprets pictographs, circle graphs and bar graphs representing one unit and multiple units describes events that have 100% or 0% probability identifies outcomes that are more likely, less likely, or equally likely to occur describes the concept of sample 	SAME

INDICATOR C: Applies algebraic concepts and methods to explore, analyze or solve real-life problems

ABE II PERFORMANCE STANDARDS/ALGEBRA

BEGINNING	APPROACHING	MET	EXCEEDS
 finds the missing element in some number sentences involving addition, subtraction, and multiplication sorts and classifies objects according to many observable attributes creates a five-item, single-attribute pattern and explains the logic of the sequence skip counts by 2's, 5's, and 10's 	 finds the missing element in a number sentence involving addition, subtraction, multiplication, and division sorts and classifies objects according to many observable attributes extends and describes in writing the logic of a variety of geometric and numeric patterns uses words such as all and none to make reasonable statements about the probability of events 	 sorts and classifies objects according to observable attributes creates, extends, and describes in writing the logic of a variety of geometric and numeric patterns uses words such as all, none, some, and many to make reasonable statements about the probability of events describes a rule for a simple pattern 	SAME

Standard: The adult learner develops and applies math strategies to a variety of situations.

Indicator D: Uses geometric properties, relationships, and Methods to identify, analyze and solve real-life problems.

ABE II PERFORMANCE STANDARDS/ GEOMETRY

BEGINNING	APPROACHING	MET	EXCEEDS
 contrasts some of the attributes of simple polygons contrasts some of the attributes of simple solid geometric figures 	characteristics of simple polygons (i.e., side, leg, angle,	 contrasts the characteristics of simple polygons contrasts the characteristics of simple, solid geometric figures identifies the characteristics of intersecting, parallel, and perpendicular lines 	SAME

Indicator E: Applies knowledge of standard measurements to real-life situations

ABE II PERFORMANCE STANDARDS/MEASUREMENT

	BEGINNING		APPROACHING		MET	EXCEEDS
•	describes how the attributes of objects and events can be measured using different units of measurement	•	measures various attributes of objects and events with appropriate tools and customary and metric measuring units using U.S. customary or metric units, estimates a measurement of a given object or event and compares the estimation to actual measurement and justifies the reasonableness of the answer	•	measures various attributes of objects and events with appropriate tools and customary and metric measuring units solves real life problems involving measurements using U.S. customary and metric units using U.S. customary or metric units, estimates a measurement of a given object or event and compares the estimation to actual measurement and justifies and judges the reasonableness of the answer compares units of measurement to determine more or less relationships using U.S. customary and metric units (e.g., 2 cups = 1 pint, 3 cups > 1 pint)	SAME

Standard: The adult learner develops and applies math strategies to a variety of situations.

ABE III

BEGINNING	APPRAOCHING	MET	EXCEEDS
At this level, the student exhibits some evidence of conceptual and procedural understanding of the following tasks in routine situations. Generally, the student is able to determine which of the available data are necessary and sufficient for correct solutions although the student shows limited skill in communicating mathematically. Sometimes in familiar, routine situations, the student:	This level of performance signifies an understanding of arithmetic operations and some ability to use fundamental algebraic and informal geometric concepts in problem solving. The student is able to solve problems through the appropriate selection and use of strategies and tools and by distinguishing between relevant and irrelevant information. The student recognizes the degree of precision needed in the answer. Written solutions are organized and presented with some supporting information. Often in familiar, routine situations and sometimes in unfamiliar, non-routine situations, the student:	At this level, the student has a thorough understanding of the concepts – an understanding sufficient for problem solving in practical situations. The student is able to convey underlying reasoning skills beyond the level of arithmetic operations to fundamental algebraic and geometric concepts in problem solving. The student is able to compare and contrast mathematical ideas and generate examples, distinguish between relevant and irrelevant information; sequence, prioritize, and observe patterns; and recognize the degree of precision needed in the answer. Written solutions are organized and presented both with supporting information and explanations of how they were achieved. Most of the time in both familiar, routine and unfamiliar, non-routine situations, the student:	At this level, the student: applies mathematical concepts and procedures consistently to solve complex problems in the various strands as noted above provides solutions that are clear, logical, and go beyond the obvious in their interpretations to identify significant connections moves beyond a particular problem by probing examples and counterexamples, making general conclusions, summary statements and posing new, related questions and comments creates unique problem-solving techniques and explains the reasoning process underlying the conclusions analyzes problems by identifying relationships, discriminating relevant from irrelevant information, sequencing and prioritizing, and observing patterns shows mathematical reasoning in solutions in a variety of ways, including words, numbers, symbols, pictures, charts, graphs, tables, diagrams and models expresses the solution clearly and logically using appropriate mathematical notation and terms and clear language, and supports solutions with evidence, in both oral and written work indicates the relative advantages of exact and approximate solutions to problems and give answers to a specified degree of accuracy

Standard: The adult learner develops and applies math strategies to a variety of situations.

ABE III

Indicator A: Develops and applies number sense to solve a variety of real-life problems and to determine if the results are reasonable

ABE III Performance Standards/ Number Sense

	N/CT	
BEGINNING APPROACHING	MET	EXCEEDS
 performs operations on whole numbers up to 10,000 and decimals to the tenths place solves one-operation word problems containing some irrelevant information expresses a quantity as an equivalent fraction, decimal, and percent reads and writes fractions, decimals, and percents as numerals and number words reads and writes numerals between 1000 and 1,000,000,000 reads and writes whole numbers between 1000 and 1,000,000,000 as number words writes whole numbers between 1000 and 1,000,000 in expanded notation places numbers between 1000 and 1,000,000 in expanded notation places numbers between 1000 and 1,000,000 in expanded notation places numbers between 1000 and 1,000,000,000 in expanded notation places numbers between 1000 and 1,000,000,000 in correct sequence 	performs operations on whole numbers up to 1,000,000,000, decimals to the thousandths place, any simple fraction or mixed number, and percents represents any rational number as a numeral, number word, or expanded notation expresses a quantity as an equivalent fraction, decimal, and percent places in correct sequence whole numbers up to 1,000,000,000 places in correct sequence fractions, decimals, and percents in same groups or mixed groups solves multiple-operation word problems involving whole numbers, fractions, decimals, identifies the whole, part, and percent in problems involving percents solves word problems involving averaging of whole numbers, fractions, or decimals solves word problems involving the order of operations places in correct sequence fractions, decimals, and percents in same groups or mixed groups selects and uses correctly the operations of addition, subtraction, multiplication, and division in story problems involving whole numbers, fractions and decimals defines prime and composite numbers identifies and defines multiples, factors, and square roots of numbers using own vocabulary sorts and defines numbers by their properties	SAME

Standard: The adult learner develops and applies math strategies to a variety of situations.

Indicator B: Applies data collection, data analysis, and probability to interpret, predict and/or solve real-life problems.

ABE III PERFORMANCE STANDARDS/DATA ANALYSIS

	BEGINNING	APPROACHING	MET	EXCEEDS
•	reads and interprets a chart	constructs, reads, and interprets a table and a line graph	 constructs, reads, analyzes, interprets, and solves word problems using tables, charts, circle graphs, and line graphs formulates questions from graphs, tables, and charts predicts outcomes in a two-step probability experiment and compares the outcomes to the predictions 	SAME

INDICATOR C: Applies algebraic concepts and Methods to explore, analyze or solve real-life problems

ABE III PERFORMANCE STANDARDS/ALGEBRA

	BEGINNING		APPROACHING		MET	EXCEEDS
•	when given word problems using one variable and a constant, identifies the variable and the constant translates the word problem into a one-operation expression using correct mathematical symbolism (e.g., $<$, $>$, \neq , $=$)	•	when given word problems with one variable and a constant, translates the facts of the situation into algebraic terms simplifies an expression by combining like terms solves a one-operation algebraic equation requiring addition and subtraction	•	when given a word problem with one variable and a constant, translates the facts of the situation into algebraic terms constructs and solves a one-operation equation requiring addition, subtraction, multiplication, or division describes and uses a variable and a constant in a real life situation represents and describes how changing the value of one variable in a relationship results in a change in another uses correct order of operations in solving algebraic equations solves simple ratio and proportion problems translates word problems into algebraic terms defines a term, expression, equation, and inequality simplifies an expression by combining like terms uses mathematical symbols (e.g., <, >, ≠, =)	SAME

Standard: The adult learner develops and applies math strategies to a variety of situations.

Indicator D: uses geometric properties, relationships, and Methods to identify, analyze and solve real-life problems.

ABE III PERFORMANCE STANDARDS/ GEOMETRY

BEGINNING	APPROACHING	MET	EXCEEDS
 using the student's vocabulary, 	 describes with appropriate vocabulary, draws, 	 draws, classifies, and measures right, 	
identifies and draws an angle	and accurately measures right, acute, obtuse,	acute, obtuse, straight, and reflex	
 using the student's own 	straight, and reflex angles	angles	
vocabulary, identifies the attributes	 using appropriate vocabulary, describes the 	 using appropriate vocabulary, identifies 	
of:	attributes of:	and describes the attributes of:	
- similarity, congruence, and symmetry	- similarity, congruence, and symmetry in geometric	- similarity, congruence, and symmetry in	
in geometric figures	figures	geometric figures	
 alternate interior, corresponding, 	- alternate interior, corresponding, complementary,	- alternate interior, corresponding,	
complementary, and supplementary	and supplementary angles	complementary, and supplementary angles	
angles	- equilateral, acute, obtuse, isosceles, and scalene	- equilateral, acute, obtuse, isosceles, and	SAME
- equilateral, acute, and obtuse	triangles	scalene triangles	
triangles	- a circle, cylinder, parallelogram, pentagon,	- a circle, cylinder, parallelogram,	
- circle, cylinder, parallelogram and	hexagon, octagon, decagon, rhombus, and	pentagon, hexagon, octagon, decagon,	
pentagon	trapezoid	rhombus, and trapezoid	

Indicator E: Applies knowledge of standard measurements to real-life situations

ABE III PERFORMANCE STANDARDS/MEASUREMENT

BEGINNING	APPROACHING	MET	EXCEEDS
converts common U.S. linear and time measurements into equivalent measurements	 converts measurement units to equivalent units within a given system solves problems involving the perimeter of objects using own vocabulary, differentiates between perimeter, area, and volume differentiates between weight and mass differentiates between capacity and volume estimates and records measurements for circumference, angles, and distance in scale drawings 	 solves problems involving the perimeter of any polygon differentiates between perimeter, area, and volume of any object uses formulas to find: area of simple polygon surface area of rectangular containers volume of rectangular containers converts measurement units to equivalent units within a given system compares estimated measurements between U.S. customary and Metric systems compares estimated measurements between Fahrenheit and Celsius systems differentiates between weight and mass differentiates between capacity and volume estimates and records measurements for circumference, angles, and distance in scale drawings 	SAME